

Listing of claims

1. (currently amended) A method comprising:

utilizing a software approach to locking memory to execute a code section relating to memory and employing a pseudo-transaction to determine whether a hardware approach to transactional memory to execute the threshold code section would have been successful; and,

where the hardware approach to transactional memory to execute the code section satisfies a threshold based on success of at least the pseudo-transaction, subsequently utilizing the hardware approach to transactional memory to execute the code section.

2. (original) The method of claim 1, wherein utilizing the software approach to locking memory to execute the code section comprises:

placing a lock on the memory to which the code section relates;

executing the code section;

committing execution of the code section to the memory as the code section is executed; and,

removing the lock on the memory to which the code section relates.

3. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfies the threshold also based on success of previous transactions employed by the hardware approach to transactional memory to execute the code section.

4. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfies the threshold also based on success of previous pseudo-transactions.

5. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfies the threshold where the hardware approach to transactional memory would have successfully executed the code section a single time.
6. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfies the threshold where the hardware approach to transactional memory would have successfully executed the code section a predetermined plurality of times.
7. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfying the threshold comprises utilizing a digital filter as the threshold in determining whether to utilize the hardware approach to transactional memory to execute the code section.
8. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfying the threshold comprises utilizing information passed from a compiler to determine whether to utilize the hardware approach to transactional memory to execute the code section.
9. (original) The method of claim 1, wherein the hardware approach to transactional memory satisfying the threshold comprises tracking a success rate of the hardware approach to transactional memory in executing the code section to determine whether to utilize the hardware approach to transactional memory to execute the code section.
10. (original) The method of claim 1, wherein utilizing the hardware approach to transactional memory to execute the code section comprises:
  - starting a transaction inclusive of the code section;
  - conditionally executing the transaction; and,

upon successfully completing the transaction, committing execution of the transaction to the memory to which the code section relates.

11. (original) A system comprising:

a processor having transactional memory capability, including a pseudo-transactional memory capability that determines whether the transactional memory capability would have been successful; and,

a memory storing a spin lock function to execute a code section by utilizing the transactional memory capability upon the transactional memory capability having satisfied a threshold based upon success of at least the pseudo-transactional memory capability.

12. (original) The system of claim 11, further comprising a plurality of nodes interconnected to one another, one of the plurality of nodes inclusive of the processor and the memory.

13. (original) The system of claim 11, wherein the memory further stores the code section, the code section programmed to call the spin lock function to execute, the spin lock function locking a portion of the memory to which the code section relates.

14. (original) The system of claim 13, wherein the memory further stores a spin unlock function that the code section calls to unlock the portion of the memory to which the code section relates.

15. (original) The system of claim 13, wherein the spin lock function initially utilizes the transactional memory capability in locking the portion of the memory to which the code section relates, falls back to a software approach to locking memory upon the transactional memory capability failing the threshold in executing the code section, and resumes utilizing the

transactional memory capability upon the transactional memory capability again satisfying the threshold based upon success of at least the pseudo-transactional memory capability.

16. (original) The system of claim 11, wherein the transactional memory capability satisfies the threshold also based upon previous success of the transactional memory capability in executing the code section.

17. (original) An article of manufacture comprising:

a tangible computer-readable medium; and,

means in the medium for utilizing a hardware approach to transactional memory to execute a code section after having utilized a software approach to locking memory to execute the code section and the hardware approach to transactional memory having satisfied a threshold based at least upon a pseudo-transaction to determine whether the hardware approach would have succeeded in executing the code section.

18. (original) The article of claim 17, wherein the means utilizes the hardware approach to transactional memory where the hardware approach to transactional memory would have successfully executed the code section a predetermined one or more times.

19. (original) The article of claim 17, wherein the hardware approach satisfies the threshold also based on previous transactions utilized by the hardware approach to execute the code section and on previous pseudo-transactions.

20. (currently amended) The article of claim 17, wherein the computer-readable medium is ~~one of a recordable data storage medium and a modulated carrier signal~~.